

In This Issue

- [CSR Acting Director Responds to Community Concerns](#)
- [CSR's Early Career Reviewer Program Seeks More Participants](#)
- [NIH Responds to Study Showing Inequities in NIH Awards](#)
- [You May Be Affected by a Change in How Reviewer Payments Are Reported to IRS](#)
- [Does NIH Support Basic Research?](#)

CSR Acting Director Responds to Community Concerns



About 50 readers of the September 2011 issue of the Peer Review Notes responded to the request for input made by CSR's Acting Director Dr. Richard Nakamura. "I was impressed that so many took the time to share their concerns," he said.

"Most of their concerns dealt with policy issues that are larger than CSR," he said. "But I was grateful. Having just become CSR's Acting Director, their input will help keep me grounded as I lead CSR and discuss the larger NIH policy issues with my NIH colleagues."

Some of the most salient concerns are listed below with Dr. Nakamura's responses.

Will Important Research Be Lost Now that NIH Has Eliminated A2 Applications?

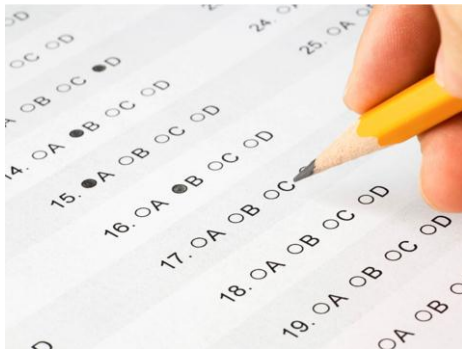
A large percentage of those who wrote me were worried that this policy change is having a serious effect on very productive PIs with critical lines of research who could succeed if given one more chance. NIH is carefully looking at the data regarding the decision to limit the number of times an applicant can submit the same applications. An early look at the data indicates that the policy is achieving its primary goal of increasing the number of A0 applications that are funded. <http://nexus.od.nih.gov/all/?p=6722>. NIH is also seeking additional data on the overall impact of this and other recent changes via external and internal surveys on the Enhancing NIH Peer Review changes. [See Q&A below.] We will continue to monitor data on this issue and keep you informed.

As a bit of background, I note that many applicants and reviewers previously complained about how few applications were funded the first time as A0s. At that time, most applications were funded as A1 or A2s and were queuing up much like airplanes around a gridlocked airport. This delay seemed unnecessary as data showed applications that initially scored in the top 20 percentile were eventually funded. The recent change therefore essentially eliminated what would have been A2s by funding them as A0s or A1s.

Because early stage and new investigators had the most difficulty waiting in the funding queue, NIH helped keep these critical researchers in the pipeline by eliminating A2s at the same time it made a commitment to fund an appropriate percentage of these applicants.

The recent fall of success rates has made the impact of the A2 policy change feel worse for some. Because of tighter budgets, many more worthy applications could not be funded whether or not A2s were permitted. NIH shares community concerns about the effects of tight budgets, and it is actively seeking ideas on how it can better manage its limited resources. Dr. Sally Rockey, Associate Director for Extramural Research, asked for community suggestions on her blog on October 17, 2011: <http://1.usa.gov/vr4qk6>.

How Will You Know the Recent NIH Peer Review Enhancements Are Working?



NIH has made a commitment to methodically assess the effectiveness of the recent peer review enhancements and continually assess our grant and peer review systems. I wholeheartedly support this approach, because I believe our decisions about future changes should be driven by the careful consideration of sound data.

Groups of applicants, reviewers and advisory council members, as well as NIH and CSR staff members were surveyed for input on the new critique templates, scoring system and other peer review changes made in May 2009.

In general, reviewers expressed a preference for the new peer review system over the old one. In terms of overall fairness and satisfaction, applicants rated the peer review system as fair or very fair most often and rated themselves as satisfied or very satisfied.

However, the surveys also identified problems that led NIH to act. For instance, critical feedback on the new bulleted critique templates led NIH to ask reviewers to be more specific in their critiques and to spell out in a paragraph the special factors that informed their Overall Impact score.

NIH is in the process of conducting a second set of external and internal stakeholder surveys to determine how well the new A2 policy, the shorter applications and other recent changes are achieving their goals. If you receive a survey, I encourage you to participate and help build our data on these important issues.

Why Prevent Reviewers Who Can't Attend the Whole Meeting from Voting?

CSR created the rule for its review groups that prevents reviewers from scoring applications when they do not attend the full meeting because of scoring inconsistencies that could occur when so many reviewers came to their meetings late or left early. I gather that this policy has been helpful in keeping study section scores well calibrated.

Though reviewers have to be present throughout the meeting to vote, those who cannot make this commitment can still participate fully in the review of a subset of the applications (in person or by phone) and influence how the members vote even though they cannot vote themselves.

Never underestimate the power of a well-articulated argument. It can sway a study section with a power not usually found in a single vote.

Can NIH Lift the Limit on the Number Publication Citations Allowed in the Biosketch?

There is no absolute limit to the number of citations applicants can list in their biosketch except the overall four-page limit for the section itself. The Enhancing NIH Peer Review initiative led NIH to create a suggested limit of 15 citations. The goal was to reduce reviewer burdens and to have more focused applications, with citations specifically related to the research proposed. Nonetheless, applicants can list more than 15 citations if they feel it would be to their advantage.

Go to our Web site to view more of Dr. Nakamura's responses to your questions on the new scoring system, a requirement for NIH grantees to serve on study sections, and others. <http://www.csr.nih.gov/news>.

CSR's Early Career Reviewer Program Seeks More Participants



CSR is expanding the recruitment of up-and-coming researchers into its new Early Career Reviewer (ECR) program, which was publicized in the September Peer Review Notes last year.

We developed the ECR program to (1) train established scientists without prior review experience to become excellent reviewers, (2) give these scientists an experience that will make them more competitive applicants and (3) engage emerging scientists with specific expertise needed by our study sections.

"The initial response has been tremendous," said CSR Acting Director Dr. Richard Nakamura, "I'm happy to say we received almost 1,000 nominations, and about 50 percent of CSR study sections included an ECR in the last review round."

"While the program was specifically designed to recruit qualified ECRs from less research-intensive institutions, we have opened the program to any qualified applicant—with a special emphasis on diversifying institutions NIH draws reviewers from."

What is expected? ECRs will participate in a CSR study section meeting once a year for up to two years, serving as the third reviewer on two to four NIH grant applications each time. This lighter review load will help ECRs stay focused on advancing their research careers.

What are the requirements? We are looking for researchers who have an active, independent research program, who are published in peer reviewed research journals, and who have not reviewed for CSR in a face-to-face meeting. An ECR does not necessarily need to have NIH or equivalent funding.

How do you apply? Send your current CV or biosketch along with a list of terms that describe your scientific expertise to us at CSREarlyCareerReviewer@mail.nih.gov.

To Learn More, Visit Our ECR Program Web Page:
<http://cms.csr.nih.gov/ReviewerResources/ECR.htm>

NIH Responds to Study Showing Inequities in NIH Awards



How well do underrepresented minority researchers do when applying for NIH grants? This past summer, *Science* magazine published some unsettling data authored by NIH-supported researchers and staff seeking to answer this question:

<http://www.sciencemag.org/content/333/6045/1015.full>

Their study revealed that between 2000 and 2006, black grant applicants received significantly fewer NIH grants than white applicants. There was a 10 percentage point gap in success rates between black and white applicants

even after controlling for education, country of origin, training, employer characteristics, previous grants, publication history and many other variables.

Dr. Lawrence Tabak, NIH Principal Deputy Director, met with CSR's Advisory Council October 25, 2011, to discuss this inequity and the NIH response. He said it was disconcerting that, after more than 30 years to improve the situation, black and Hispanic researchers are underrepresented in the NIH-funded workforce. He said that there were a number of factors that likely are at play. For example, the overall number of underrepresented minorities going into science and engineering is quite low, with fewer than 500 underrepresented minorities earning Ph.Ds. in biology, chemistry and physics each year. http://www.nap.edu/catalog.php?record_id=12984

While this is an issue larger than NIH, NIH is committed to understanding and addressing this inequity.

NIH Action Items

Dr. Tabak noted that previous service on an NIH review committee reduced disparities for black applicants. He then said it was very fortunate that CSR had already developed its Early Career Reviewer Program, which includes many underrepresented minority researchers who have expertise needed by CSR review groups.

To improve the diversity of the biomedical workforce, NIH has developed an action plan and is seeking out the causes for the disparities in success rates. It has also begun to take action, including—

- Engaging in rigorous communication with all stakeholders.
- Supporting the expansion of the CSR Early Career Reviewer program, both to expose these investigators to the review process and to increase the diversity of review panels
- Exploring experiments to determine if implicit bias exists in peer review and how to eliminate it.
- Supporting pre-application mentoring in institutions.
- Funding extramural grants, including the NIH Pathfinder Award, to study interventions that might strengthen diversity.
- Establishing two high-level groups, one internal and one external. The external group, the ACD Working Group on Diversity in the Biomedical Research Workforce, has met

several times and issued a preliminary report in December and will issue a final report in June 2012.

Discussion

Dr. Tabak welcomed suggestions from the members of CSR's Advisory Council. Several members suggested possible ways to conduct blinded studies to understand better what role reviewer bias could play.

Dr. Peter MacLeish from the Morehouse School of Medicine emphasized how important addressing this issue was for the nation. He also noted that the neuroscience institute at his school—working closely with NINDS—has had an 83 percent success rate in early investigators obtaining R01s. He said these data may not be statistically significant because of the relatively small numbers of researchers involved, but the conditions at his institute could help point to some ways forward for other institutions: researchers there are strongly supported, know their value to the institute, and must meet high expectations.

NIH Wants Your Suggestions: The NIH Director Working Group on Diversity in the Biomedical Research Workforce is seeking input on ways NIH could promote diversity in the biomedical research workforce. This group is also seeking input to help NIH identify—and as necessary address—factors in peer review that may be associated with funding disparities. <http://grants.nih.gov/grants/guide/notice-files/NOT-OD-12-031.html>. Submit your comments via the Web site noted in the announcement by February 4, 2012.

You May Be Affected by a Change in How Reviewer Payments Are Reported to IRS



Message for Reviewers: If you received \$600 or more from NIH for serving on review or advisory groups in 2011, the NIH Office of Financial Management will send you an IRS 1099 Misc. form that reports as income the entire amount you received to cover your honorarium, per diem, ground transportation and incidentals. The forms should arrive by January 31, 2012.

In the past, NIH only reported to the IRS honorarium payments that totaled \$600 or above during the year. This change was made to comply with IRS reporting requirements.

If you need guidance on the possibility of deducting expenses related to your NIH service in 2011, we encourage you to explore the options provided in your tax preparation software or consult your personal income tax advisor.

Dr. Richard Nakamura, CSR Director, CSRDIRECTOR@csr.nih.gov.

Does NIH Support Basic Research?



We raise this question to highlight the fact that many NIH applicants and some reviewers erroneously assume that research applications submitted to NIH must be translational and *directly* related to human health.

NIH supports both basic and translational research.

Although most NIH institutes do target specific diseases, they also support research that addresses the basis of these conditions such as macromolecular and metabolite biosynthesis, degradation and regulation. NIH institutes that do not target specific diseases support innovative,

basic research using normal cellular systems, model organisms and microorganisms not directly involved in disease. As stated on the NIH home page, “NIH’s mission is to seek fundamental knowledge about the nature and behavior of living systems and the application of that knowledge to enhance health, lengthen life, and reduce the burdens of illness and disability.”

Basic research is essential: If NIH only supported translational research, there would soon be few basic research results to translate. Like investment portfolios, the NIH grant portfolio requires diversity in approaches and projects that range from fundamental research for elucidating mechanisms to translational research for moving basic findings into medical applications and to clinical research for testing possible therapeutic approaches. The significance and impact of basic science applications should be evaluated primarily on their ability to have a sustained, powerful influence on the research field(s) involved not necessarily their direct impact on health care.

Applicants should be clear: Whether their proposed research is basic or translational, applicants need to clearly state and justify the significance and impact of their goals and aims. Why will the potential results be important and what might the outcomes lead to? Because many investigators assume that diagnosing, preventing and treating human disease must be the goal, some will propose aims that are beyond the scope of their project and leave themselves open to criticisms based on lack of relevance or expertise. Applicants might add an aim to include the design of possible therapeutic agents. However, since the project is really focused on understanding regulatory mechanisms, such an aim could be considered premature and underdeveloped.

Applicants are encouraged to keep the review criteria in mind and discuss how the successful completion of the aims will improve scientific knowledge, technical capability, and/or clinical practice. In addition, they need to determine whether their approaches are “well-reasoned and appropriate to accomplish the specific aims of the project” and consider potential problems that would compromise feasibility. They should also note that NIH Institutes and Centers (ICs) vary in the kinds of fundamental/basic science they support, so we encourage applicants to identify ICs that could be enthusiastic about the science being proposed.

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